LESSON PLAN-2023 (WINTER 2023)
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline-ELECTRICAL	Semester-5TH	Name of teaching faculty- ANIL KU. SAHOO
SUBJECT-UEET	No of days/ per week class alloted-5	SEM From date- 01/08/2023 No of weeks-17
Week	**Class day**	**Theory Topics-Utilization of Electrical Energy & Traction**
1ST	01.08.2023	1.1. Definition and Basic principle of Electro Deposition.
	02.08.2023	1.2 Important terms regarding electrolysis.
	03.08.2023	1.3. Faradays Laws of Electrolysis.
	04.08.2023	1.4. Definitions of current efficiency, Energy efficiency
2ND	07.08.2023	1.5. Principle of Electro Deposition.
	08.08.2023	Do
	09.08.2023	1.6. Factors affecting the amount of Electro Deposition.
	10.08.2023	1.7. Factors governing the electro deposition
	11.08.2023	1.8. State simple example of extraction of metals.
	12.08.2023	1.9. Application of Electrolysis.
3RD	14.08.2023	CLASS TEST
	16.08.2023	2.1. Advantages of electrical heating
	17.08.2023	2.2 Mode of heat transfer and Stephen's Law
	18.08.2023	2.3. Principle of Resistance heating. (Direct resistance and indirect resistance heating.)
	19.08.2023	do
4TH	21.08.2023	2.4. Discuss working principle of direct arc furnace .
	22.08.2023	indirect arc furnace
	23.08.2023	2.5. Principle of induction heating.
	24.08.2023	2.5.1. Working principle of direct core type, vertical core type
	25.08.2023	indirect core type Induction furnace
	26.08.2023	2.5.2. Principle of coreless induction furnace and skin effect.
5TH	28.08.2023	2.6. Principle of dielectric heating and its application.
	29.08.2023	2.7. Principle of Microwave heating and its application.
	30.08.2023	Do
	31.08.2023	CLASS TEST

	01.09.2023	3.1. Explain principle of arc welding.
	02.09.2023	3.2. Discuss D. C. & A. C. Arc phenomena.
1ST	04.09.2023	3.4. Types of arc welding.
	05.09.2023	Do
	06.09.2023	3.5. Explain principles of resistance welding
	07.09.2023	do
	08.09.2023	3.6. Descriptive study of different resistance welding methods.
	09.09.2023	Do
2ND	11.09.2023	CLASS TEST
	12.09.2023	4.1. Nature of Radiation and its spectrum.
	13.09.2023	4.2. Terms used in illuminations. (Lumen, Luminous intensity,
	14.09.2023	Intensity of illumination, MHCP, MSCP, MHSCP
	15.09.2023	Solid angle, Brightness, Luminous efficiency.
	16.09.2023	4.3. Explain the inverse square law and the cosine law.
3RD	18.09.2023	4.5. Describe light distribution and control.
	20.09.2023	Explain related definitions like maintenance factor and depreciation fc
	21.09.2023	4.6. Design simple lighting schemes and depreciation factor.
	22.09.2023	4.7. Constructional feature and working of Filament lamps
	23.09.2023	DO
4TH	25.09.2023	effect of variation of voltage on working of filament lamps.
	26.09.2023	4.8. Explain Discharge lamps.
	27.09.2023	4.9. State Basic idea about excitation in gas discharge lamps.
	28.09.2023	4.10. State constructional factures and operation of Fluorescent lamp.
	30.09.2023	Do
1ST	03.10.2023	4.11. Sodium vapor lamps. 4.12. High pressure mercury vapor lamps
	04.10.2023	4.13. Neon sign lamps.
	05.10.2023	4.14. High lumen output & low consumption fluorescent lamps
	06.10.2023	DO
	07.10.2023	CLASS TEST
2ND	09.10.2023	Question Discussion
	10.10.2023	INTERNAL
	11.10.2023	INTERNAL
	12.10.2023	INTERNAL
	13.10.2023	INTERNAL
	14.102023	INTERNAL

3RD	16.10.2023	5.1 State group and individual drive
	17.10.2023	5.2 Method of choice of electric drives
	18.10.2023	5.3 Explain starting and running characteristics of DC and AC motor
	19.10.2023	5.4 State Application of: 5.4.1 DC motor
	20.10.2023	5.4.2. 3 phase synchronous motors
	30.10.2023	5.4.3 3-phase induction motor.
	31.10.2023	5.4.4. Single phase induction, series motor
1ST	01.11.2023	5.4 Sunriversal motor and repulsion motor.
	02.11.2023	CLASS TEST
	03.11.2023	6.1 Explain system of traction
	04.11.2023	6.2. System of Track electrification.
2ND	06.11.2023	6.3. Running Characteristics of DC and AC traction motor.
	07.11.2023	6.4 Explain control of motor: 6.4.1. Tapped field control
	08.11.2023	6.4.2. Rheostatic control.
	09.11.2023	6.4.3. Series parallel control.
	10.11.2023	6.4.4. Multi-unit control.
	11.11.2023	6.4.5. Metadyne control.
3RD	13.11.2023	CLASS TEST
	14.11.2023	Previous year question discussion
	15.11.2023	Revision of chapter 1
	16.11.2023	Do
	17.11.2023	Do
	18.11.2023	Previous year question discussion
4TH	20.11.2023	Revision of chapter 2 .3
	21.11.2023	Do
	22.11.2023	Do
	23.11.2023	Previous year question discussion
	24.11.2023	Previous year question discussion
	25.11.2023	Previous year question discussion
	27.11.2023	Previous year question discussion
	28.11.2023	2 & 5 Mark question discussion
	29.11.2023	2 & 5 Mark question discussion
	30.11.2023	2 & 5 Mark question discussion

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